1898

UREDINEÆ

EXSICCATÆ ET ICONES

BY

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AND

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IMPERIAL MYCOLOGICAL INSTITUTE
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FASCICLE II

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PREFACE TO FASCICLE II.

The first fascicle of this series of dried specimens of American *Uredineæ*, numbering seventeen species (Nos. 1 to 17) and thirty-one packets, accompanied with photo-engraved drawings of the spores, was issued in September, 1894. The present fascicle continues the series with an addition of seventeen species (Nos. 18 to 34) and fifty-two packets, the material of each packet being illustrated with drawings of the spores as heretofore, and futhermore thirteen photographs are included. Two of the photographs are taken natural size showing leaves bearing æcidia, the remainder are photomicrographs of spores.

The drawings, as in the first series, are made with an Abbe camera lucida, under a uniform magnification of 625 diameters, and reduced to 470 diameters in engraving. They are all made from the material of the distribution, every packet being illustrated, and care has been taken to show typical forms so far as possible, the chief exceptions being in the case of occasional one-celled teleutospores of *Puccinias* and those with septa placed Diorchidium-wise.

The essentially correct dimensions of the spores may be obtained from the plates by multiplying the measurements taken in millimeters by two, the results being in microns (μ).

The photographs are also made directly from the material of the distribution. Those of spores are magnified 250 diameters, or for measuring, each millimeter on the photograph equals 4μ; those of host and fungus shown together are natural size.

The first fascicle was devoted exclusively to *Lepto-Uredineæ;* the present one embraces species having uredospores and teleutospores on the *Gramineæ*, and it is proposed to have the third fascicle of the same character.

The attempt is made to have the fascicles approximately uniform in value, but this is not done by including a fixed number of packets, as is customary, but by looking after the quality, rarity and desirability of the forms, by providing examples for comparison of the different stages and hosts in the same species, and by illustrations. In order to carry out this intention to the fullest extent possible, it is sometimes neccessary to include packets scantily supplied with material, or in which the material was not collected at its best. But all such seeming deviations from a high standard of quality are to be accepted as concessions to the necessity of providing the amplest material for study,

although after making every effort it could not be secured in the first-class condition desired.

The fascicle has been much enriched by contributions from Miss Lillian Snyder and Messrs. Elam Bartholomew, Wm. Stuart, W. C. Blasdale, W. N. Suksdorf, L. H. Pammel and J. J. Davis, to whom the editors are under many obligations.

Descriptions of every species in the series, and a running commentary have been provided in an independent publication, entitled "Descriptions of American Uredineæ", printed in the *Bulletin of the Laboratories of Natural History of Iowa University*. Separates have been distributed and additional copies may be purchased. The "Descriptions" for the seventeen species of the first fascicle are in volume III, pages 44 to 75, and those of the present fascicle in volume IV, pages 377 to 405.

The edition of this fascicle is limited to fifty copies, which are issued either in loose packets or in well bound octavo volumes, as subscribers may prefer.

THE EDITORS

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An asterisk before the number indicates that the specimen is accompanied by a photograph.

18a.	**Uromyces Alopecuri Seym.**	on	*Alopecurus geniculatus.*		Minn.
18b.	" " (uredo)	on	" "		"
19a.	" **graminicola** Burr.	on	*Panicum virgatum.*		Kans.
*19b.	" "	on	" "		Iowa.
19c.	" " (uredo)	on	" "		Kans.
*20a.	**Puccinia Panici** Diet.	on	" "		"
20b.	" "	on	" "		Iowa.
20c.	" " (uredo)	on	" "		"
21a.	" **flaccida** B. & Br.	on	"	*Crus-galli.*	Kans.
*22a.	" **Esclavensis** D. & H.	on	"	*bulbosum.*	N. M.
22b.	" "	on	"	"	Mex.
*23a.	" **emaculata** Schw.	on	"	*capillare.*	Iowa.
23b.	" "	on	"	"	Ind.
23c.	" " (uredo)	on	"	"	"
23d.	" " (uredo)	on	"	"	Iowa.
23e.	" " (uredo)	on	"	*holciforme.*	Mex.
24a.	" **cryptandri** E.& B.(uredo)	on	*Sporobolus cryptandrus.*		Kans.
*25a.	" **Sporoboli** Arth.	on	"	*heterolepis.*	Iowa.
*26a.	" **Vilfæ** Arth. & Holw.	on	"	*asper.*	Kans.
26b.	" "	on	"	"	Ind.
26c.	" " (uredo)	on	"	"	"
26d.	" " (uredo)	on	"	"	Kans.
*27a.	" **Stipæ** Arth.	on	*Stipa spartea.*		Iowa.
27b.	" "	on	"	"	"
27c.	" " (uredo)	on	"	"	"
28a.	" **substerilis** E. & E.	on	"	*viridula.*	N. M.
*29a.	" **graminella** (Sp.) D. & H.	on	"	*eminens.*	Calif.
30a.	" **poculiformis** (Jacq.) Wett.	on	*Triticum vulgare.*		Iowa.
30b	" "	on	"	"	Wash.
*30c.	" " (uredo)	on	"	"	Ind.
30d.	" "	on	"	*repens.*	N. Y.
30e.	" "	on	"	*caninum.*	Calif.

30f.	**Puccinia poculiformis**	(uredo)	on	*Avena sativa.*	Kans.
30g.	" "		on	" *fatua.*	Iowa.
30h.	" "		on	*Agrostis vulgaris.*	Iowa.
30i.	" "		on	" *scabra.*	Mass.
30j.	" "		on	*Dactylis glomerata.*	Iowa.
30k.	" "		on	*Hordeum jubatum.*	"
30l.	" "		on	" "	Kans.
30m.	" "		on	" "	Iowa.
30n.	" "		on	" "	Mex.
30o.	" "		on	" *murinum.*	Calif.
30p.	" "		on	*Elymus Canadensis.*	Kans.
*30q.	" "	(æcidia)	on	*Berberis vulgaris.*	Ind.
30r.	" "	(æcidia)	on	" "	Iowa.
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31b.	" "	(uredo)	on	" "	Ind.
31c.	" "		on	" *fatua.*	Iowa.
*31d.	" "	(æcidia)	on	*Rhamnus lanceolata.*	Ind.
31e.	" "	(æcidia)	on	" *alnifolia.*	Wis.
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32b.	" "	(uredo)	on	" "	"
32c.	" "		on	" "	Mex.
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